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(54) PROGRAM CHOICES SUPPORTING DEVICE/METHOD, BROADCASTING RECEPTION DEVICE/METHOD, BROADCASTING TRANSMISSION DEVICE/METHOD AND BROADCASTING RECEPTION DEVICE/METHOD

(57)Abstract:
PROBLEM TO BE SOLVED: To supply individual information to respective viewers while security is kept and to support the selection of a program among multiple programs.
SOLUTION: An extension information extraction part 201 extracts extension

information among information addressed to individuals, which are edited with the specified viewers as objects. A processing part 28 displays a program list and a product list based on data for control, which is contained in extension information. The viewer refers to the displayed lists and decides the reception of the program or decides the purchase of a product.

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CLAIMS

[Claim(s)]
[Claim 1] In the program selection exchange equipment which supports selection of said program in the case of choosing a predetermined program out of two or more programs The 1st extract means which extracts said individually-addressed information from information including the individually-addressed information which is a broadcast side and was edited for the specific viewer, The 2nd extract means which extracts the data for supporting selection of said program from said

individually-addressed information extracted by said 1st extract means, Program selection exchange equipment characterized by having an activation means to perform predetermined processing for supporting selection of said program, based on said data extracted by said 2nd extract means.

[Claim 2] Said data are program selection exchange equipment according to claim 1 characterized by including the list of said programs.

[Claim 3] Said data are program selection exchange equipment according to claim 1 characterized by being constituted with the data for control, and the data for a display.

[Claim 4] In the program selection exchange approach which supports selection of said program in the case of choosing a predetermined program out of two or more programs Said individually-addressed information is extracted from information including the individually-addressed information which is a broadcast side and was edited for the specific viewer. The program selection exchange approach characterized by performing predetermined processing for extracting the data for supporting selection of said program from said extracted individually-addressed information, and supporting selection of said program based on said extracted data.

[Claim 5] In the broadcast receiving set which has been sent from the broadcast side and which receives information including the individually-addressed information edited for the specific viewer, and the information on a program A receiving means to receive said information, and the 1st extract means which extracts said individually-addressed information from said information received by said receiving means, The broadcast receiving set characterized by having the 2nd extract means which extracts the data for control from said individually-addressed information extracted by said 1st extract means, and an activation means to perform predetermined processing based on the data for said control extracted by said 2nd extract means.

[Claim 6] In the broadcast receiving approach of receiving information including the individually-addressed information which has been sent from the broadcast side and which was edited for the specific viewer, and the information on a program The broadcast receiving approach characterized by receiving said information, extracting said individually-addressed information from said received information, extracting the data for control from said extracted individually-addressed information, and performing predetermined processing based on the extracted data for said control.

[Claim 7] The broadcast sending set characterized by having a transmitting means to transmit an addition means to add the data for choosing said program as said individually-addressed information in the broadcast sending set which transmits the information on a program, and the individually-addressed information edited for the specific viewer, and the information and said individually-addressed information on said program.

[Claim 8] Said individually-addressed information is a broadcast sending set according

to claim 7 characterized by having further a creation means to create said list, including the list of said programs.

[Claim 9] The broadcast transmitting approach characterized by adding the data for choosing said program as said individually-addressed information in the broadcast transmitting approach of transmitting the information on a program, and the individually-addressed information edited for the specific viewer, and transmitting the information and said individually-addressed information on said program.

[Claim 10] The broadcast sending set characterized by having a transmitting means to transmit an addition means to add the data for control to said individually-addressed information, and the information and said individually-addressed information on said program, in the broadcast sending set which transmits the information on a program, and the individually-addressed information edited for the specific viewer.

[Claim 11] The broadcast transmitting approach characterized by adding the data for control to said individually-addressed information, and transmitting the information and said individually-addressed information on said program in the broadcast transmitting approach of transmitting the information on a program, and the individually-addressed information edited for the specific viewer.

[Claim 12] In the broadcast transmitter-receiver with which a broadcast-information [on a program] and individually-addressed information edited for specific viewer side transmits, and a receiving side receives this information a broadcast side It has a transmitting means to transmit an addition means to add the data for choosing said program as said individually-addressed information, and the information and said individually-addressed information on said program. A receiving side A receiving means to receive the information sent from said broadcast side, and the 1st extract means which extracts said individually-addressed information from said information received by said receiving means, The 2nd extract means which extracts said data from said individually-addressed information extracted by said 1st extract means, The broadcast transmitter-receiver characterized by having an activation means to perform predetermined processing for choosing said program, based on said data extracted by said 2nd extract means.

[Claim 13] In the broadcast transceiver approach that a broadcast-information [on a program] and individually-addressed information edited for specific viewer side transmits, and a receiving side receives this information a broadcast side The data for choosing said program as said individually-addressed information are added, and the information and said individually-addressed information on said program are transmitted. A receiving side The broadcast transceiver approach characterized by performing predetermined processing for receiving the information sent from said broadcast side, extracting said individually-addressed information from said received information, extracting said data and choosing said program from said extracted individually-addressed information based on said extracted data.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention transmits the information especially edited for a specific individual about program selection exchange equipment, the program selection exchange approach, a broadcast receiving set, the broadcast receiving approach, a broadcast sending set, the broadcast transmitting approach, a broadcast transmitter-receiver, and a broadcast transceiver approach, and relates to the program selection exchange equipment which receives this and reproduces, the program selection exchange approach, a broadcast receiving set, the broadcast receiving approach, a broadcast sending set, a broadcast transmitting approach, a broadcast transmitter-receiver, and a broadcast transceiver approach.

[0002]

[Description of the Prior Art] In recent years, it enables a broadcast system to transmit many programs with an advance of informational compression technology, and large-capacity-izing and improvement in the speed of an information-transmission way. It has come to play a role with the important program selection exchange equipment which supports choosing a desired program out of the program of these many as the number of programs increases.

[0003] program selection exchange equipment -- for example, the audience fee gold of the specified program, broadcasting hours, and the classes of information broadcast (for example, an image, voice, data, etc.) -- oh, information, such as a muscle, the list of programs broadcast on a predetermined day, etc. are displayed, and it supports that a viewer chooses a program.

[0004] Moreover, program selection exchange equipment can also receive and display the information (message) which referred to the viewing-and-listening hysteresis of each viewer's past etc., and the broadcast side edited according to the individual.

[0005] Drawing 15 is the block diagram in the former showing an example of the configuration of a digital television broadcast sending set. In addition, it sets in this block diagram and individually-addressed information contains the key information for carrying out the disk rumble of the program which is the information which the broadcast side edited for the specific individual, for example, is scrambled, the message which the broadcast side addressed to each viewer. Moreover, the program information for general is the information which all viewers can receive, and includes the EPG (Electrical Program Guide) information for supporting choosing a program etc.

[0006] In drawing 15 , the processing section 1 is constituted by central processing

unit (CPU;Central Processing Unit) 1a, ROM(Read Only Memory) 1b, RAM(Random Access Memory) 1c, IF(Interface) 1d, etc., and is made as [perform / control, various operations, etc. of the whole equipment]. The modem section 2 is made as [supply / the processing section 1], after receiving the information (for example, information which shows that it viewed and listened to a program, information on the purchase **** sake of goods, etc.) sent by each viewer through the telephone line and restoring to these.

[0007] The individually-addressed information generating section 3 is made as [generate / individually-addressed information]. The encryption section 4 is made as [perform / to individually-addressed information / encryption processing]. The program information generating section 6 for general is made as [generate / the program information for general]. The synthetic section 5 is made as [carry out / synthetic processing of the individually-addressed information supplied from the encryption section 4, and the program information for general supplied from the program information generating section 6 for general].

[0008] The image speech information generating section 8 generates two or more program information (image speech information) which uses an image, voice, data, etc. as a component, and if there is need, it is made as [perform / to predetermined program information / scramble processing]. The synthetic section 7 is made as [compound / the information supplied from the image speech information generating section 8, and the information supplied from the synthetic section 5]. The transmitting section 9 is made as [transmit / turn to each viewer the information supplied from the synthetic section 7, and]. Moreover, the database section 10 is made as [store / each viewer's information, viewing-and-listening hysteresis, etc. about an agreement].

[0009] In addition, since the measures against protection are taken by the encryption section 4 so that individually-addressed information cannot be used other than a specific individual, secrecy nature is secured.

[0010] Drawing 16 is the block diagram in the former showing an example of the configuration of the program selection exchange equipment (receiving set which receives the signal transmitted from the equipment shown in drawing 15) of a receiving side. The tuner section 21 receives the information sent from the broadcast side, and is made as [supply / the separation processing section 22]. The separation processing section 22 is made as [separate / individually-addressed information, the program information for general, and image speech information]. Moreover, the decode section 23 decodes individually-addressed information enciphered (decode), and is made as [extract / the message and key information which are included in this].

[0011] Drawing 17 is drawing explaining the relation of individually-addressed information, a message, and key information. As shown in this drawing, a message 42

and the key information 43 are independently included by the individually-addressed information 41, respectively.

[0012] The display 24 is made as [display / the message 42 extracted in the decode section 23], for example, is constituted by a CRT (Cathode Ray Tube) display, LCD (Liquid Crystal Display), etc.

[0013] The image speech processing section 25 chooses predetermined program information out of the image speech information separated by the separation processing section 22, and is made as [extract / the image and speech information which are contained in this program information]. Moreover, if there is need, disk rumble processing will be performed to program information. The display 26 is made as [display / the image information supplied from the image speech processing section 25 or the processing section 28], and this is the same configuration as the above-mentioned display 24. Therefore, these can also be shared. The loudspeaker 27 is made as [change / into voice / the sound signal supplied from the image speech processing section 25 or the processing section 28].

[0014] As shown in drawing 18 , the processing section 28 consists of CPU51, ROM52, RAM53, an interface (IF) 54, etc., and is made as [perform / control, various operations, etc. of the whole equipment].

[0015] The storage section 29 is made as [store / if needed / the program information for general (EPG information) sent from the broadcast side]. The input section 31 consists of a keyboard, a mouse, a remote controller, etc., and is made as [operate / when a viewer inputs information]. The modem section 32 modulates the data supplied from the processing section 28 to a predetermined signal, and is made as [transmit / to the broadcast side shown in drawing 15 through the telephone line].

[0016] Below, actuation of equipment [more than] is explained.

[0017] For example, CPU1a of the broadcast sending set which shows the demand which transmits a certain information to drawing 15 a carrier beam case supplies predetermined control command to the individually-addressed information generating section 3 from the case where a broadcast side needs to send a certain information to a specific viewer, and a viewer, and the individually-addressed information 41 is generated. Encryption processing is performed to this individually-addressed information 41 in the encryption section 4.

[0018] If CPU1a has the need in parallel to this, a predetermined processing command will be supplied to the program information generating section 6 for general, and the program information for general will be generated. And synthetic processing is performed to the enciphered individually-addressed information 41 and the program information for general by the synthetic section 5, and they are supplied to the synthetic section 7.

[0019] If the image speech information generating section 8 is throughout at the time of broadcast, it will generate two or more programs which consist of an image, voice,

data, etc., and will supply them to the synthetic section 7. In addition, if the image speech information generating section 8 has the need, it will perform scramble processing to a predetermined program. In this case, CPU1a reads the key information stored in the database section 10 etc., and supplies this to the image speech information generating section 8. The image speech information generating section 8 performs scramble processing to program information based on this key information.

[0020] Moreover, CPU1a reads the key information (it differs for every viewer) according to individual for canceling this scramble (a disk rumble being carried out) from the database section 10, and outputs it to the individually-addressed information generating section 3.

[0021] The individually-addressed information generating section 3 adds this key information to the individually-addressed information 41 as key information 43, and outputs it to it. Moreover, the image speech information generating section 8 performs scramble processing to a program based on this key information.

[0022] In addition, in a receiving side, when reproducing this scrambled program (disk rumble), the key information 43 included in the individually-addressed information 41 is extracted, and disk rumble processing is performed based on this key.

[0023] Synthetic processing will be performed in the synthetic section 7, and the program information supplied from the image speech information generating section 8 and the information supplied from the synthetic section 5 will be transmitted towards each viewer through an electric wave, a cable, etc. from the transmitting section 9.

[0024] It is received in the tuner section 21 of the receiving side shown in drawing 16, and the information sent from the broadcast side is supplied to the separation processing section 22. The separation processing section 22 divides the received information into the individually-addressed information 41, the program information for general, and image speech information. The individually-addressed information 41 acquired as a result of separation processing, the program information for general, or image speech information is supplied to the decode section 23, the processing section 28, or the image speech processing section 25, respectively.

[0025] The individually-addressed information 41 enciphered is decoded by the decode section 23, and a message 42 and the key information 43 are further extracted from this inside. A message 42 is supplied and displayed on a display 24. From the displayed message, a viewer gets to know that the payment to a pay program is not made yet etc.

[0026] Moreover, the key information 43 is supplied to the processing section 28, for example, is once stored in RAM53.

[0027] The program information for general separated in the separation processing section 22 is supplied to the storage section 29 through the processing section 28. And the storage section 29 will store the supplied program information for general as data.

[0028] For example, if the display of EPG is inputted from the input section 31 in order that a viewer may retrieve the program information on desired, the inputted command will be supplied to the processing section 28. And CPU51 of the processing section 28 reads EPG, and is made to display it on a display 26 from the storage section 29 corresponding to the inputted command. A viewer discovers a predetermined program from this display (EPG).

[0029] As a result of referring to EPG, when viewing and listening to a predetermined program is determined, a viewer will perform the predetermined input which means choosing the program from the input section 31. It detects that CPU51 of the processing section 28 had a predetermined input, and the control command for choosing this program is supplied to the image speech processing section 25. The image speech processing section 25 extracts the image information and speech information of a program which were specified based on this control command, and supplies them to a display 26 and a loudspeaker 27, respectively. By this, playback of a program will be started.

[0030] In addition, when scramble processing is performed to the program, CPU51 reads the key information 43 stored in RAM53, and supplies this to the image speech processing section 25. The image speech processing section 25 performs disk rumble processing based on the supplied key information 43, the image and sound signal by which the disk rumble was carried out are supplied to a display 26 and a loudspeaker 27, respectively, and a program is reproduced.

[0031] If such program selection exchange equipment is used, EPG can be displayed, a desired program can be searched out of many programs, or the program information on a specific program can be displayed, it can refer to this, and a program can be chosen.

[0032]

[The technical problem which invention considers as a solution activity] However, in conventional equipment, EPG was made into the program information for general, and since it was made as [transmit / to all viewers / the same EPG], the technical problem that it was difficult to choose a desired program promptly [each viewer] and certainly occurred.

[0033] This invention is made in view of such a situation, and enables it to choose a desired program out of many programs promptly [each viewer] and certainly.

[0034]

[Means for Solving the Problem] The 1st extract means which extracts individually-addressed information from information including the individually-addressed information which program selection exchange equipment according to claim 1 is a broadcast side for a specific viewer, and was edited, It is characterized by having an activation means to perform predetermined processing for supporting selection of a program, based on the data extracted by the 2nd extract

means which extracts the data for supporting selection of a program from the individually-addressed information extracted by the 1st extract means, and the 2nd extract means. $ The program selection exchange approach according to claim 4 is characterized by to perform predetermined processing for extracting individually-addressed information from information including the individually-addressed information which is a broadcast side and was edited for the specific viewer, extracting the data for supporting selection of a program and supporting selection of a program from the extracted individually-addressed information, based on the extracted data.

[0035] A receiving means by which a broadcast receiving set according to claim 5 receives information, and the 1st extract means which extracts individually-addressed information from the information for which it was received by the receiving means, It is characterized by having the 2nd extract means which extracts the data for control from the individually-addressed information extracted by the 1st extract means, and an activation means to perform predetermined processing based on the data for control extracted by the 2nd extract means.

[0036] The broadcast receiving approach according to claim 6 is characterized by receiving information, extracting individually-addressed information from the received information, extracting the data for control from the extracted individually-addressed information, and performing predetermined processing based on the extracted data for control.

[0037] A broadcast sending set according to claim 7 is characterized by having a transmitting means to transmit an addition means to add the data for choosing a program as individually-addressed information, and the information and individually-addressed information on a program.

[0038] The broadcast transmitting approach according to claim 9, The data for choosing a program as individually-addressed information are added, and it is characterized by transmitting the information and individually-addressed information on a program.

[0039] A broadcast sending set according to claim 10 is characterized by having a transmitting means to transmit an addition means to add the data for control to individually-addressed information, and the information and individually-addressed information on a program.

[0040] The broadcast transmitting approach according to claim 11 adds the data for control to individually-addressed information, and is characterized by transmitting the information and individually-addressed information on a program.

[0041] A broadcast transmitter-receiver according to claim 12 a broadcast side It has a transmitting means to transmit an addition means to add the data for choosing a program as individually-addressed information, and the information and individually-addressed information on a program. A receiving side A receiving means

to receive the information sent from the broadcast side, and the 1st extract means which extracts individually-addressed information from the information received by the receiving means, It is characterized by having an activation means to perform predetermined processing for choosing a program from the individually-addressed information extracted by the 1st extract means based on the data extracted by the 2nd extract means which extracts data, and the 2nd extract means.

[0042] The broadcast transceiver approach according to claim 13 a broadcast side The data for choosing a program as individually-addressed information are added, and the information and individually-addressed information on a program are transmitted. A receiving side It is characterized by performing predetermined processing for receiving the information sent from the broadcast side, extracting individually-addressed information from the received information, extracting data and choosing a program from the extracted individually-addressed information based on the extracted data.

[0043] In program selection exchange equipment according to claim 1 The 1st extract means extracts individually-addressed information from information including the individually-addressed information which is a broadcast side and was edited for the specific viewer. Based on the data which the 2nd extract means extracted the data for supporting selection of a program, and were extracted from the individually-addressed information extracted by the 1st extract means by the 2nd extract means, an activation means performs predetermined processing for supporting selection of a program.

[0044] Predetermined processing for extracting individually-addressed information from information including the individually-addressed information which is a broadcast side and was edited for the specific viewer in the program selection exchange approach according to claim 4, extracting the data for supporting selection of a program and supporting selection of a program from the extracted individually-addressed information, based on the extracted data is performed.

[0045] In a broadcast receiving set according to claim 5, an activation means performs predetermined processing based on the data for control which the 2nd extract means extracted the data for control from the individually-addressed information which the 1st extract means extracted individually-addressed information from the information which the receiving means received information and was received by the receiving means, and was extracted by the 1st extract means, and were extracted by the 2nd extract means.

[0046] In the broadcast receiving approach according to claim 6, information is received, individually-addressed information is extracted from the received information, the data for control are extracted from the extracted individually-addressed information, and predetermined processing is performed based on the extracted data for control.

[0047] In a broadcast sending set according to claim 7, an addition means adds the data for choosing a program as individually-addressed information, and a transmitting means transmits the information and individually-addressed information on a program.
[0048] It sets to the broadcast transmitting approach according to claim 9, The data for choosing a program as individually-addressed information are added, and the information and individually-addressed information on a program are transmitted.
[0049] In a broadcast sending set according to claim 10, an addition means adds the data for control to individually-addressed information, and a transmitting means transmits the information and individually-addressed information on a program.
[0050] In the broadcast transmitting approach according to claim 11, the data for control are added to individually-addressed information, and the information and individually-addressed information on a program are transmitted.
[0051] In a broadcast transmitter-receiver according to claim 12 An addition means adds data for a broadcast side to choose a program as individually-addressed information, and a transmitting means transmits the information and individually-addressed information on a program. A receiving side The 1st extract means extracts individually-addressed information from the information which the receiving means received the information sent from the broadcast side, and was received by the receiving means. Based on the data which the 2nd extract means extracted data from the individually-addressed information extracted by the 1st extract means, and were extracted by the 2nd extract means, an activation means performs predetermined processing for choosing a program.
[0052] In the broadcast transceiver approach according to claim 13 A broadcast side adds the data for choosing a program as individually-addressed information, and transmits the information and individually-addressed information on a program. A receiving side Predetermined processing for receiving the information sent from the broadcast side, extracting individually-addressed information from the received information, extracting data and choosing a program from the extracted individually-addressed information based on the extracted data is performed.
[0053]
[Embodiment of the Invention] Drawing 1 is a block diagram showing the configuration of one example of the broadcast sending set about this invention. Moreover, drawing 2 is a block diagram showing the configuration of one example of the program selection exchange equipment (receiving set) of the receiving side about this invention. In addition, in these drawings, the same sign is given to drawing 15 and the same part as the block diagram of drawing 16 , and explanation is omitted suitably.
[0054] The extended information generating section 101 and the extended information adjunct 102 (addition means) are newly added to the block diagram of drawing 1 . Extended information is information which consists of data for a display, and data for control, as mentioned later. The extended information adjunct 102 is made as [add /

to the individually-addressed information 41 which the individually-addressed information generating section 3 generated / the extended information which the extended information generating section 101 generated]. In addition, other configurations are the same as that of the case in drawing 15 .

[0055] The extended information extract section 201 (2nd extract means) is newly added to the block diagram of drawing 2 . This extended information extract section 201 extracts extended information from the message 42 extracted in the decode section 23, and is made as [supply / the processing section 28]. Moreover, it replaces with the storage section 29 in drawing 16 , and the program information database section 202 is formed. This program information database section 202 memorizes EPG, and also has the function of searching predetermined EPG. Other configurations are the same as that of the case in drawing 16 .

[0056] Drawing 3 is drawing showing the relation of this extended information, the key information 43, a message 42, and the individually-addressed information 41. The newly added extended information 44 is included by the message 42, and, as for this message 42, the key information 43 is independently included by the individually-addressed information 41 as usual.

[0057] Drawing 4 is drawing showing the DS of this extended information 44. Extended information 44 consists of data 61 for a display, and data 62 for control. The data 61 for a display are used for a screen display, and consist of data, such as an alphabetic character and a graphic form, etc. Moreover, the data 62 for control are a processing command (program) for making predetermined processing perform to CPU51 of the processing section 28 (activation means) of a receiving side. CPU51 processes retrieval of program information, selection of a program to which it views and listens based on this processing command.

[0058] Below, actuation of a block of drawing 1 is explained. In the extended information adjunct 102, the extended information 44 which the extended information generating section 101 generated is added to the individually-addressed information 41 which the individually-addressed information generating section 3 generated. The individually-addressed information 41 to which extended information 44 was added is supplied to the encryption section 4. Other actuation is the same as that of the case in drawing 15 .

[0059] Drawing 5 is a flow chart explaining a series of processings in which extended information 44 is extracted from the received information, in the equipment shown in drawing 2 . The tuner section 21 (receiving means) corresponds to a command from the input section 31, receives the signal of a predetermined broadcast-band region, gets over, and is outputted to the separation processing section 22. From the receipt information supplied from the tuner section 21, the separation processing section 22 (1st extract means) separates the individually-addressed information 41 (step S11), and supplies this to the decode section 23. The decode section 23 extracts a message

42 and the key information 43, after decoding the individually-addressed information 41 enciphered (step S12). And a message 42 is supplied to the extended information extract section 201, and the key information 43 is supplied to the processing section 28, respectively. The extended information extract section 201 extracts extended information 44 from a message 42 (step S13), and supplies this to the processing section 28. Moreover, the message 42 after extracting extended information 44 is supplied to a display 24, and is displayed as a message addressed to an individual.

[0060] Drawing 6 is a flow chart explaining the processing (Maine processing) which performs the data 62 for control with which CPU51 of the processing section 28 is contained in the extended information 44 extracted by the extended information extract section 201.

[0061] In this Maine processing, CPU51 of the processing section 28 judges first whether the input which requires activation of the extended information 44 sent from the broadcast side was performed from the input section 31 (step S31). Processing will be ended if it judges with (NO) to which the input is not performed (end). When it judges with the input having been performed (YES), from the extended information 44 supplied from the extended information extract section 201, CPU51 extracts the data 61 for a display, and the data 62 for control (step S32), and stores these in RAM53 independently (step S33). And CPU51 will read serially the data 62 for control stored in RAM53, and will perform processing described by this data 62 for control (program) (step S34). And completion of processing of this data 62 for control ends the Maine processing (end).

[0062] In addition, in order to show a viewer having received this extended information 44, what is necessary is just made to perform predetermined displays ("message arrival" etc.) to a display 26. Moreover, in this example, when extended information 44 is received, it may be made to have made it store in RAM53, after extracting the data 61 for a display, and the data 62 for control from extended information 44 and carrying out separation processing of these, when a viewer performs a predetermined input from the input section 31, but to perform these processings automatically.

[0063] An example is given and the processing performed next at step S34 of the Maine processing shown in drawing 6 is explained.

[0064] The processing realized by extended information 44, i.e., the processing performed in step S34 of drawing 6 The program lists (recommendation program list etc.) which are broadcast sides and were edited for every viewer are displayed. for example, (**) -- The program select list which is a broadcast side and was edited is displayed for processing (b) [which displays the program information on the program which is on this list and was specified] each viewer of every. It is the processing which carries out the purchase of the goods which are on this list, the goods list which receives the specified program, and which is a broadcast side and was edited for processing (c) each viewer of every is displayed, are on this list, and were specified.

[0065] Above, a flow chart is used for below and processing of (a) thru/or (c) is concretely explained to it.

[0066] Drawing 7 is a flow chart which realizes processing of (a) mentioned above. In this processing, a broadcast side edits for every viewer and the program list which added to the data 61 for a display and has been sent is displayed on a display 26. And when a viewer specifies the program of the request on this program list, the program information on this program is retrieved and displayed from the stored data of the program information database section 202.

[0067] In the flow chart of drawing 7 , CPU51 of the processing section 28 first reads the data 61 for a display stored in RAM53 as a result of processing of step S33 of the Maine processing (step S51). And based on the procedure described by the data 62 for control stored like RAM53, a program list (recommendation program list) is displayed on a display 26 (step S52).

[0068] Drawing 8 shows the example of a display of the program list displayed on a display 26 as a result of processing of step S52. In this example of a display, four programs ("clo ITSUERU", a "war game", "SHUNITOKE", "NAZUDAKKU") are displayed as a program list.

[0069] This program list is created for every viewer by the broadcasting station side based on the genre specified by the receiving hysteresis of each viewer's past, and the viewer. Therefore, since the program in which the viewer is hardly interested has not been indicated since the start in the list, a viewer is provided only with significant information.

[0070] CPU51 judges whether the input (for example, input of the number added to the program by the ten key) which specifies the specific program of the program list currently displayed was made from the input section 31 (step S53). If it judges with (NO) by which the input is not made, the same processing will be repeated until an input is made. Moreover, when it judges with the input having been made (YES), the program information database section 202 is made to retrieve delivery and the program information on the specified program for a predetermined processing command (step S54). And CPU51 reads the program information acquired as a result of retrieval, is made to display it on a display 26 (step S55), ends processing, and returns to step S34 of the Maine processing (return).

[0071] Drawing 9 shows an example of the program information displayed when a viewer chooses "1 Clo ITSUERU" of the recommendation program list shown in drawing 8 . this example -- an "original", "starring", "supervising", "time amount", and a "audience fee" -- " -- oh, information, such as muscle", is displayed.

[0072] Below, the processing of (b) mentioned above is explained. In this processing, when the program select list which the broadcast side edited for every viewer is displayed and a viewer chooses the program of the request on this list, reception of a program is started.

[0073] Drawing 10 is a flow chart for realizing processing of the above-mentioned (b). In this flow chart, CPU51 of the processing section 28 reads first the data 61 for a display stored in RAM53 as a result of processing of step S33 of the Maine processing (step S71). And based on the procedure described by the data 62 for control stored like RAM53, a program select list is displayed on a display 26 (step S72).

[0074] A program select list (recommendation program list) as shown in drawing 8 is displayed on a display 26 as a result of this processing. Four programs are displayed on this list as a recommendation program as mentioned above. In addition, although the same display format as the program list in step S52 of drawing 7 is used in this example, these may be distinguished using a different display format from this.

[0075] Next, CPU51 judges whether the input which specifies a specific program among the programs currently enumerated on the program select list was made from the input section 31 (step S73). If it judges with (NO) by which the input is not made, the same processing will be repeated until an input is made. Moreover, if it judges with the input having been made (YES), the processing command which chooses the specified program will be supplied to the image speech processing section 25. Then, reception of a program is started (step S74) and it returns to step S34 of the Maine processing (return).

[0076] Supposing a viewer chooses "1 Clo ITSUERU" from the recommendation program list of drawing 8 now, the control command for choosing this program will be supplied to the image speech processing section 25, and reception of a program will be started.

[0077] At the end, the processing of (c) mentioned above is explained. In this processing, a broadcast side displays the goods list edited for every viewer. And the agreement of goods purchase is made by choosing desired goods out of this list.

[0078] Drawing 11 is a flow chart for realizing processing of this (c). In this flow chart, CPU51 of the processing section 28 reads first the data 61 for a display stored in RAM53 as a result of processing of step S33 of the Maine processing (step S91). And based on the procedure described by the data 62 for control stored like RAM53, a goods list is displayed on a display 26 (step S92).

[0079] Drawing 12 shows the example of a display of the goods list displayed on a display 26 as a result of processing of step S92. In this example of a display, five goods (a "necklace", a "bracelet", a "pendant", a "ring", "earring") are displayed with that price and image (however, the graphic display of an image is omitted in drawing 12).

[0080] Next, CPU51 judges whether the input which specifies specific goods among the goods currently displayed was made from the input section 31 (step S93). If it judges with (NO) by which the input is not made, the same processing will be repeated until an input arises. Moreover, if it judges with the input having been made (YES), the data which mean the purchase of the specified goods will be supplied to the modem

section 32. After the modem section 32 performs modulation processing to this data, it transmits to a broadcast side through the telephone line (step S94), and returns to step S34 of the Maine processing (return).

[0081] Supposing a viewer chooses "1 Necklace" from the goods list shown in drawing 12 now, CPU51 will supply the data which mean purchasing these goods to the modem section 32. As for the modem section 32, a delivery and broadcast side receives this data for this data by the modem section 2 of drawing 1 to a broadcast side through the telephone line. And this data is supplied to the processing section 1 (creation means), and is stored in the predetermined field of the database section 10. Reading appearance of the information stored in the predetermined field of the database section 10 will be periodically carried out by the processing section 1, and the goods with which the purchase was made will be sent to a predetermined viewer.

[0082] In the above example, it considered as the DS by which extended information 44 is included by the message 42 as shown in drawing 3 . However, as shown in drawing 13 , it is good also as DS which stores extended information 44 in the individually-addressed information 41 independently [a message 42]. Moreover, it cannot be overemphasized that various modifications exist in addition to this.

[0083] Moreover, although program information was retrieved from the program information data base section 202, you may make it search this with the program list display process shown in drawing 7 from the database section 10 by the side of broadcast. The flow chart which explains the processing in this case to drawing 14 is shown. In addition, this processing is performed as a part of Maine processing shown in drawing 6 like other processings.

[0084] In this flow chart, CPU51 of the processing section 28 of a receiving side reads first the data 61 for a display stored in RAM53 as a result of processing of step S33 of the Maine processing (step S111). And based on the procedure described by the data 62 for control stored like RAM53, a program list is displayed on a display 26 (step S112).

[0085] Next, CPU51 judges whether the input which specifies a specific program among the programs displayed on a program list was made from the input section 31 (step S113). If it judges with (NO) by which the input is not made, the same processing will be repeated until an input is made. Moreover, if it judges with the input having been made (YES), a predetermined processing command will be sent to the modem section 32. The modem section 32 requires of a broadcast side through the telephone line so that the program information on the specified program may be transmitted (step S114).

[0086] As a result of this demand, the modem section 2 by the side of the broadcast shown in drawing 1 receives the information transmitted from the viewer side, and supplies it to the processing section 1. CPU1a of the processing section 1 retrieves this demanded program information from the database section 10. And the program

information acquired as a result of retrieval is supplied to the extended information section generating section 101, and the extended information 44 for displaying this program information on the display 26 by the side of a viewer is generated. It continues, and encryption processing is performed in the encryption section 4, and this extended information 44 is transmitted through the synthetic section 5 and the synthetic section 7 to the viewer who required from the transmitting section 9 (transmitting means), after being added to the individually-addressed information 41 in the extended information adjunct 102.

[0087] In a receiving side, processing shown in drawing 5 to the information sent from the broadcast side is performed, and extended information 44 is extracted. CPU51 of the processing section 28 acquires this extended information 44 (step S115), and extracts the data 61 for a display from this extended information 44. Continuing, CPU51 supplies and displays this data 61 for a display on a display 26 (step S116). And it returns to step S34 of the Maine processing (return).

[0088] According to the above processing, the program information and goods information which are not stored in the program information database section 202 can also be displayed.

[0089] Finally, by this example, a program is added to the data 62 for control, and it was made to process based on this program. However, two or more programs are beforehand registered into ROM52, for example, the data which choose either of the programs of these plurality are added to the data 62 for control, and it may be made to perform processing registered into ROM52 based on this data for selection. In this case, the amount of the information transmitted from a broadcast side is reducible. In addition, in this description, the data for control mean the both sides of the data for specifying the program beforehand prepared for the program itself or the receiving side.

[0090]

[Effect of the Invention] As mentioned above, according to program selection exchange equipment according to claim 1 and the program selection exchange approach according to claim 4 Individually-addressed information is extracted from information including the individually-addressed information which is a broadcast side and was edited for the specific viewer. Since it was made to perform processing which extracts the data for supporting selection of a program from the extracted individually-addressed information, and supports selection of a program based on the extracted data A desired program can be made to choose promptly and certainly for every viewer using the information sent from the broadcast side, securing secrecy nature.

[0091] According to a broadcast receiving set according to claim 5 and the broadcast receiving approach according to claim 6 Since receive information, individually-addressed information is extracted from the received information, the

data for control are extracted from the extracted individually-addressed information and it was made to perform predetermined processing based on the extracted data for control Selection of a program or goods can be made to perform more smoothly for every viewer by receiving the information sent from the broadcast side and using this, securing secrecy nature.

[0092] It becomes possible to make a program choose promptly and certainly for every viewer, securing secrecy nature, since according to the broadcast sending set according to claim 7 and the broadcast transmitting approach according to claim 9 the data for giving selection of a program to individually-addressed information are added and a program and individually-addressed information were transmitted.

[0093] Securing secrecy nature according to the broadcast sending set according to claim 8, since the program list was created with the creation means, the program list according to individual can be certainly offered to each viewer, and it can support that a viewer chooses a program.

[0094] It becomes possible to make a program and goods choose promptly and certainly for every viewer, securing secrecy nature, since according to the broadcast sending set according to claim 10 and the broadcast transmitting approach according to claim 11 the data for control are added to individually-addressed information and a program and individually-addressed information were transmitted.

[0095] According to a broadcast transmitter-receiver according to claim 12 and the broadcast transceiver approach according to claim 13, in a broadcast side The data for program selection are added to individually-addressed information, and a program and individually-addressed information are transmitted. In a receiving side Since receive the information sent from the broadcast side, individually-addressed information is extracted from the received information, the data for program selection are extracted from the extracted individually-addressed information and it was made to perform processing of program selection based on the extracted data It becomes possible the exchange of the information containing the data for program selection is not only to attain, but to acquire required information from a broadcast side in the equipment of a receiving side by the broadcast side and the receiving side, securing secrecy nature.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the configuration of one example of the broadcast sending set about this invention.

[Drawing 2] It is the block diagram showing the configuration of one example of the

broadcast receiving set about this invention.

[Drawing 3] It is drawing explaining the DS of the individually-addressed information about this invention.

[Drawing 4] It is drawing explaining the DS of the extended information about this invention.

[Drawing 5] It is a flow chart explaining the processing from which extended information is extracted in the example of drawing 2 .

[Drawing 6] In case the example of drawing 2 performs extended information, it is a flow chart explaining the Maine processing which the processing section performs.

[Drawing 7] It is a flow chart explaining the processing in the case of displaying a program list in the Maine processing of drawing 6 .

[Drawing 8] It is drawing showing the example of a display of the program list displayed as a result of processing of drawing 7 .

[Drawing 9] It is drawing showing the example of a display of the program information displayed as a result of processing of drawing 7 .

[Drawing 10] It is a flow chart explaining the processing in the case of displaying a program select list in the Maine processing of drawing 6 .

[Drawing 11] It is a flow chart explaining the processing in the case of displaying a goods list in the Maine processing of drawing 6 .

[Drawing 12] It is drawing showing the example of a display of the goods list displayed as a result of processing of drawing 11 .

[Drawing 13] It is drawing showing other examples of a configuration of the DS of the individually-addressed information about this invention.

[Drawing 14] A program list is displayed in the Maine processing of drawing 6 , and it is a flow chart explaining the processing in the case of acquiring the specified program information from a broadcast side.

[Drawing 15] It is the block diagram showing an example of the configuration of the conventional broadcast sending set.

[Drawing 16] It is the block diagram showing an example of the configuration of the conventional broadcast receiving set.

[Drawing 17] It is drawing explaining an example of the DS of the conventional individually-addressed information.

[Drawing 18] It is the block diagram showing the detail of the configuration of the processing section of drawing 16 .

[Description of Notations]

1 Processing Section (Creation Means)

2 Modem Section

3 Individually-addressed Information Generating Section

4 Encryption Section

5 Synthetic Section

6 Program Information Generating Section for General
7 Synthetic Section
8 Image Speech Information Generating Section
9 Transmitting Section (Transmitting Means)
21 Tuner Section (Receiving Means)
22 Separation Processing Section (1st Extract Means)
23 Decode Section
24 Display
25 Image Speech Processing Section
26 Display
27 Loudspeaker
28 Processing Section (Activation Means, 2nd Extract Means)
29 Storage Section
31 Input Section
32 Modem Section
41 Individually-addressed Information
42 Message
43 Key Information
44 Extended Information
51 CPU
52 ROM
53 RAM
54 IF
61 Data for Display
62 Data for Control
101 Extended Information Generating Section
102 Extended Information Adjunct (Addition Means)
201 Extended Information Extract Section (2nd Extract Means)
202 Program Information Database Section